

CLAIMS

1. A method of manufacturing single-crystal semiconductor blocks, wherein single-crystal semiconductor blocks (2a) of a relatively small diameter for slicing off single-crystal semiconductor wafers of a relatively small diameter desired by users are cut out from a single-crystal semiconductor block (1a) of a relatively large diameter.
2. The method of manufacturing single-crystal semiconductor blocks according to claim 1, wherein said semiconductor is a III-V group compound semiconductor.
3. The method of manufacturing single-crystal semiconductor blocks according to claim 1, wherein said large-diameter single-crystal semiconductor block has a thickness of at least 10 mm.
4. The method of manufacturing single-crystal semiconductor blocks according to claim 1, wherein said small-diameter single-crystal semiconductor blocks are cut out by any of an electric discharge machining method, a wire saw method, a grinding method by means of a cylindrical core, and a band saw method.
5. The method of manufacturing single-crystal semiconductor blocks according to claim 1, wherein at least four said small-scale single-crystal semiconductor blocks having a diameter of at least 2 inches are cut out from said large-scale single-crystal semiconductor block having a diameter of at least 5 inches.
6. The method of manufacturing single-crystal semiconductor blocks according to claim 1, wherein a total cross-sectional area of a plurality of said small-diameter single-crystal semiconductor blocks cut out from said large-scale single-crystal semiconductor block corresponds to at least 50% of a cross-sectional area of said large-scale single-

crystal semiconductor block.

5 7. The method of manufacturing single-crystal semiconductor blocks according to claim 1, wherein defective parts included in any cross-sectional area of said large-diameter single-crystal semiconductor block correspond to at most 65% of said cross-sectional area.

10 8. The method of manufacturing single-crystal semiconductor blocks according to claim 1, wherein each of said small-diameter single-crystal semiconductor blocks is formed to have at least any of an orientation flat, an index flat, and a notch for easy determination of its crystal orientation.

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